

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently amended) A method for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises culturing virally-infected eukaryotic cells under low oxygen conditions to produce a bacterium containing a eukaryotic and/or viral gene, said low oxygen conditions consisting of an atmosphere of 0-2 v/v% oxygen, based on the total volume of atmosphere.
2. (Currently amended) The method according to claim 1, wherein said low oxygen conditions comprise anaerobic conditions interrupted with at least one intervening exposure of the cells to aerobic or microaerophilic culture conditions.
3. (Previously presented, but not entered) The method according to claim 2 which further comprises subjecting the cells to ~~an~~ a final aerobic culturing step.
4. (Original) The method according to claim 2, wherein said anaerobic culture conditions comprise an atmosphere containing less than or equal to 1 v/v% oxygen, based on the total volume of atmosphere.
5. (Original) The method according to claims 4, wherein said atmosphere contains less than 0.1 v/v% oxygen, based on the total volume of atmosphere.

6. (Original) The method according to claim 1 wherein said virally-infected eukaryotic cells are retrovirally-infected mammalian cells.
7. (Original) The method according to claim 6, wherein said mammalian cells are human cells.
8. (Original) The method according to claim 1, wherein said eukaryotic cell is a mammalian, avian or fish cell.
9. (Original) The method according to claim 8, wherein said eukaryotic cell is an endothelial cell.
10. (Original) The method according to claim 1, wherein said eukaryotic cell is a mammalian brain capillary endothelial cell.
11. (Previously presented) The method according to claim 1, wherein said virally-infected cell is infected with a virus selected from the group consisting of the murine L-cell virus, simian immunodeficiency virus (SIV), human immunodeficiency virus (HIV), Ableson murine leukemia virus and Maloney murine leukemia virus.
12. (Previously presented) The method according to claim 11, wherein said virus is the murine L-cell virus.
13. (Original) The method according to claim 1, wherein said culturing step is carried out at a temperature between about 20 and about 50°C.
14. (Original) The method according to claim 1, wherein said culturing step is carried out at a temperature of about 37°C.

15. (Currently amended) A method for producing a bacterium that contains a eukaryotic and/or viral gene, which comprises (a) culturing virally-infected eukaryotic cells under anaerobic conditions consisting of 0-2 v/v% oxygen, based on the total volume of atmosphere, with at least one intervening exposure to aerobic or microaerophilic conditions, (b) subsequently culturing the cells from step (a) under aerobic conditions, and (c) isolating at least one bacterium that contains a eukaryotic or viral gene.

16. (Original) The method according to claim 15, wherein aerobic culturing step (b) is carried out in an atmosphere containing at least 0.1 v/v% oxygen, based on the total volume of atmosphere.

17. (original) The method according to claim 16, wherein said atmosphere contains more than 1 v/v% oxygen, based on the total volume of atmosphere.

18. (Original) The method according to claim 15, wherein said virally-infected eukaryotic cell is a retrovirally-infected mammalian endothelial cell.

19. (Previously presented) The method according to claim 15, wherein said virally-infected eukaryotic cell is a human brain capillary endothelial cell infected with the murine L-cell virus.

20. (Currently amended) The method according to claim ~~15~~ 15, further comprising filtering the cells cultured in step (a) prior to said aerobic culturing step (b).

21. (Original) The method according to claim 20, comprising filtering the cells through a 0.1 to 0.8  $\mu\text{m}$  filter.

22. (Original) The method according to claim 21, wherein said filter is 0.1 to 0.45  $\mu\text{m}$ .

23. (Original) The method according to claim 22, wherein said filter is 0.22  $\mu\text{m}$ .

24. (Previously presented) A pleiomorphic cell that is not a transgenic cell, and is derived from a eukaryotic cell, containing at least one gene evolved from the genome of said eukaryotic cell, prepared by a process according to claim 1.

25. (Previously presented) A pleiomorphic cell that is not a transgenic cell, and is derived from a eukaryotic cell, containing at least one gene evolved from the genome of said eukaryotic cell, prepared by a process according to claim 15.

26. (Previously presented, but not entered) A cell according to claim 24 that is a ~~bacteria~~ bacterium.

27. (Previously presented) A cell according to claim 24 that has morphology that is neither prokaryotic nor eukaryotic.

28. (Previously presented, but not entered) A cell according to claim 25 that is a ~~bacteria~~ bacterium.

29. (Previously presented) A cell according to claim 25 that has morphology that is neither prokaryotic nor eukaryotic.